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Governor

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**NEW MEXICO
ENVIRONMENT DEPARTMENT**

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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

June 11, 2014

Ms. Sue Padilla
Utilities Director
City of Salem
845 N. Motel Blvd.
Las Cruces, New Mexico 88007

Re: Minor Municipal; SIC 4952; NPDES Compliance Evaluation; Salem Wastewater Treatment Plant; NM0030457; May 14, 2014

Dear Ms. Padilla:

Enclosed, please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the Federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

Salem WWTP
June 11, 2014
Page 2

If you have any questions about this inspection report, please contact Daniel Valenta at 505-827-2575 or at daniel.valenta@state.nm.us.

Sincerely,

/s/Bruce Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters, USEPA (6EN-WM) by e-mail
Brent Larsen, USEPA (6WQ) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
NMED District III, Mike Kesler by e-mail



Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 <input type="text" value="N"/> 2 <input type="text" value="5"/> 3 <input type="text" value="N"/> <input type="text" value="M"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="3"/> <input type="text" value="0"/> <input type="text" value="4"/> <input type="text" value="5"/> <input type="text" value="7"/> 11 <input type="text" value="1"/> 12 <input type="text" value="4"/> <input type="text" value="0"/> <input type="text" value="5"/> <input type="text" value="1"/> <input type="text" value="4"/> 17 <input type="text" value="C"/> 18 <input type="text" value="S"/> 20 <input type="text" value="1"/>	Remarks				
<input type="text" value="M"/> <input type="text" value="I"/> <input type="text" value="N"/> <input type="text" value="O"/> <input type="text" value="R"/> <input type="text" value="W"/> <input type="text" value="W"/> <input type="text" value="T"/> <input type="text" value="P"/>					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> 69	70 <input type="text" value="4"/>	71 <input type="text" value="N"/>	72 <input type="text" value="N"/>	73 <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	74 <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> 75 <input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/> 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Salem Wastewater Treatment Plant	Entry Time /Date 0914/May 14, 2014	Permit Effective Date February 1, 2014
From I-25, exit Garfield/Salem Exit, travel south on 187 to the town of Salem, south on Grand Ave/Roming Dr. before crossing the Rio Grande turn left onto dirt road, River Levee, WWTP can be see beside the levee. Dona Ana County	Exit Time/Date 1110/May 14, 2014	Permit Expiration Date January 31, 2019
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Josh Prieto/Operator/575-640-7620 Kurt Moffatt, Operations Manager, 575-635-5634, fax 575-233-2195	Other Facility Data LAT 32° 41' 37.19" N LONG 107° 12' 32.73" W SIC 4952	
Name, Address of Responsible Official/Title/Phone and Fax Number Sue Padilla/845 N. Motel Blvd., Las Cruces, New Mexico 88007/ Utilities Director/575-647-7142 fax 575-525-6199	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

<input type="text" value="S"/> Permit	<input type="text" value="S"/> Flow Measurement	<input type="text" value="S"/> Operations & Maintenance	<input type="text" value="N"/> CSO/SSO
<input type="text" value="M"/> Records/Reports	<input type="text" value="S"/> Self-Monitoring Program	<input type="text" value="S"/> Sludge Handling/Disposal	<input type="text" value="N"/> Pollution Prevention
<input type="text" value="S"/> Facility Site Review	<input type="text" value="N"/> Compliance Schedules	<input type="text" value="N"/> Pretreatment	<input type="text" value="N"/> Multimedia
<input type="text" value="S"/> Effluent/Receiving Waters	<input type="text" value="S"/> Laboratory	<input type="text" value="N"/> Storm Water	<input type="text" value="N"/> Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. SEE REPORT AND FURTHER EXPLANATIONS.

Name(s) and Signature(s) of Inspector(s) DANIEL VALENTA /s/Daniel Valenta	Agency/Office/Telephone/Fax NMED/SWQB 505-827-2575	Date 6/11/2014
Signature of Management QA Reviewer SARAH HOLCOMB /s/Sarah Holcomb	Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-2798	Date 6/11/2014

Salem Wastewater Treatment Facility		PERMIT NO. NM0030457	
SECTION A - PERMIT VERIFICATION			
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED No.)	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES		<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
4. ALL DISCHARGES ARE PERMITTED		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
SECTION B - RECORDKEEPING AND REPORTING EVALUATION			
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS:		<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED Yes.)	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
b) NAME OF INDIVIDUAL PERFORMING SAMPLING		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
c) ANALYTICAL METHODS AND TECHNIQUES.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
d) RESULTS OF ANALYSES AND CALIBRATIONS.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
e) DATES AND TIMES OF ANALYSES.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
f) NAME OF PERSON(S) PERFORMING ANALYSES.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.		<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA	
SECTION C – OPERATIONS AND MAINTENANCE			
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS:		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED No.)	
1. TREATMENT UNITS PROPERLY OPERATED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
2. TREATMENT UNITS PROPERLY MAINTAINED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> N No backup power on site, portable generators are available if needed	
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
5. ALL NEEDED TREATMENT UNITS IN SERVICE.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.		<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA Some spare parts on site but most at Central warehouse.	
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.		<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	

Salem Wastewater Treatment Facility	PERMIT NO. NM0030457
SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)	
9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	<div><input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA</div> <div><input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA</div> <div><input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA</div>
10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	<div><input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA</div> <div><input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA</div>
SECTION D - SELF-MONITORING	
PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. DETAILS:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>No</u>).
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
b) PROPER PRESERVATION TECHNIQUES USED.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
SECTION E - FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. DETAILS:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>No</u>)
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE 4” Parshall Flume & ISCO Ultrasonic flow meter	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
4. CALIBRATION FREQUENCY ADEQUATE. (DATE OF LAST CALIBRATION Quarterly ____) RECORDS MAINTAINED OF CALIBRATION PROCEDURES. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	<div><input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA</div> <div><input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA</div> <div><input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA</div>
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. During high discharge rates standing waves are present.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA
6. HEAD MEASURED AT PROPER LOCATION.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
SECTION F – LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. DETAILS:	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>No</u>)
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA

Salem Wastewater Treatment Facility						PERMIT NO. NM0030457	
SECTION F - LABORATORY (CONT'D)							
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. Only pH reading taken on site.						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
4. QUALITY CONTROL PROCEDURES ADEQUATE.						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
5. DUPLICATE SAMPLES ARE ANALYZED. <u> 10 </u> % OF THE TIME.						<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
6. SPIKED SAMPLES ARE ANALYZED. <u> </u> % OF THE TIME.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
7. COMMERCIAL LABORATORY USED.						<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA	
LAB NAME <u> </u> Dona Ann County Utilities							
LAB ADDRESS <u> </u> 845 N. Motel Blvd, Las Cruces, NM							
PARAMETERS PERFORMED <u> TSS, BOD, e-Coli </u>							
SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. <input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>NO</u>).							
OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	NO	NO	Clear	NO	NO	NO	No Smell
RECEIVING WATER OBSERVATIONS:							
SECTION H - SLUDGE DISPOSAL							
SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS.				<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA (FURTHER EXPLANATION ATTACHED <u>No</u>).			
DETAILS:				Sludge taken to Las Cruces landfill.			
1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY.				<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA			
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503.				<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA			
3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)							
SECTION I - SAMPLING INSPECTION PROCEDURES						(FURTHER EXPLANATION ATTACHED <u>no</u>).	
1. SAMPLES OBTAINED THIS INSPECTION.						<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA	
2. TYPE OF SAMPLE OBTAINED							
GRAB		COMPOSITE SAMPLE		METHOD		FREQUENCY	
3. SAMPLES PRESERVED.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
4. FLOW PROPORTIONED SAMPLES OBTAINED.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
7. SAMPLE SPLIT WITH PERMITTEE.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT.						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	

**Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
NPDES Permit No. NM0030457
May 14, 2014**

Introduction

On May 14, 2014 a Compliance Evaluation Inspection (CEI) was conducted at the Salem Wastewater Treatment Plant (WWTP) located near Salem, New Mexico by Mr. Daniel Valenta of the State of New Mexico Environment Department (NMED). This facility is classified as a minor municipal discharger under the federal Clean Water Act (CWA), Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit number NM0030457. The facility has a design capacity of 0.20 million gallons per day (MGD).

The Salem WWTP discharges into Rio Grande in Segment 20.6.4.101 NMAC of the Lower Rio Grande River Basin NMAC (*State of New Mexico Standards for Interstate and Intrastate Surface Water*). Segment 20.6.4.101 has an USEPA-approved Total Maximum Daily Load (TMDL) established for E-coli bacteria. Designated uses of this segment are irrigation, marginal aquatic life, livestock watering, wildlife habitat, and secondary contact.

The NMED performs a certain number of CEI's for the U.S. Environmental Protection Agency (USEPA) each year. The purpose of this inspection is to provide USEPA with information to evaluate the permittee's compliance with the NPDES permit. This report is based on review of files maintained by the permittee and NMED, on-site observation by NMED personnel, and verbal information provided by the permittee's representative. Findings of the inspection are detailed on the attached EPA form 3560-3 and in the narrative Further Explanations section of the report.

The inspector arrived at the Salem WWTP at 0914 hours on May 14, 2014. The Operations Manager, Mr. Kurt Moffatt, was contacted by phone but was not available on the day of the inspection. Operator Josh Prieto was contacted, he was able to meet the Inspector at the plant. No documents are kept at the facility for review. Lab bench sheets, chain of custody, and calibration documents were requested and supplied from the Water Utilities Department in Las Cruces for the months of January, February, and March of 2014.

Treatment Plant Description

Raw sewage from approximately 250 homes is collected in a newly rebuilt lift station located northeast of the plant and pumped to the entrance works. In an emergency situation such as power failure, influent can be pumped directly to the SRB basins with the aid of portable generators and pumps.

The facility consists of two Sequencing Batch Reactors (SBR's) designed to treat an average of 200,000 gpd wastewater collected from the Communities of Salem and Ogaz. At the entrance works, raw sewage passes through a manual bar screen, manual grit chamber, and Parshall flume. Depending on the SBR cycling times, influent then enters either of the two Aqua Aerobics reactors. Both reactors are equipped with a bank of air diffusers on the west side and a mixer on the east side. During the fill cycle for one reactor, the other reactor is either in a treatment cycle or decant mode.

**Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
NPDES Permit No. NM0030457
May 14, 2014**

The facility utilizes the following phase times within the SBR basins: anoxic fill with mixing 30 minutes; aerated fill 150 minutes; aeration 30 minutes; settling 120 minutes; and sludge wasting, decant and idle 30 minutes. These periods are adjusted over time to enhance plant efficiency. Four, six-hour cycles are run in each SBR basin per day. The decanted flow passes to the equalization basin, which has been partially covered to prevent algal build-up and then flows to the Infilco Degremont, Inc. UV disinfection unit. This unit contains 20 lamps. Effluent flow is measured by a 4" Parshall flume in conjunction with an ISCO Model 4210 ultrasonic flow meter with a totalizer. The effluent is then discharged to the Rio Grande. Sludge is wasted four times a day at a rate of 99 gallons per minute. SBR #1 wastes for 0.5 minutes per cycle and SBR #2 wastes for 0.6 minutes per cycle. Waste activated sludge is pumped to the Aqua Aerobics aerobic digester for dewatering and thickening. The thickened sludge is pumped to one of four concrete paved sludge drying beds as necessary (usually once per month). Supernatant from sludge bed bottoms drain back to the reactors. Solids removed from the drying beds are shipped to Las Cruces landfill for final disposal.

Plant operators visit the facility everyday, for at least three to four hours, including weekends. The staff performs general maintenance and checks around the facility. During the remaining hours, the facility is monitored on an "on-call" basis. The facility operates 24 hours a day, regularly alternating each batch reactor on predetermined schedule. If a problem occurs at the WWTP the facility has a system in place to notify the operators. The lift station is located in town next to a major road, should a problem occur a flashing red emergency light is activated.

**Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
NPDES Permit No. NM0030457
June 14, 2014**

Further Explanations

Section B-Recordkeeping & Reporting Evaluation-Overall Rating of “Marginal”

1. Permit Requirements – for Recordkeeping and Reporting Evaluation

Part I.A. of the permit has a 30 Day Average (mg/l), 7 Day Average (mg/l), and a 30-Day Average loading (lbs/day) requirement for BOD and TSS.

Total mass (lbs/day) = (flow (MGD)) x (8.34) x (concentration (mg/l))

A review of analytical results for January, February, and March of 2014 was conducted after the inspection using records maintained by the permittee for outfall 001. No permit limits were exceeded during the reviewed time period.

Reporting Period: From January 1, 2014 to March 30, 2014

BOD5 30-Day Average mg/l

January = 2.60 mg/l + 3.32 mg/l = 5.92/2 = 2.96 mg/l vs (reported on DMR) 2.96 mg/l
February = 4.56 mg/l + 5.81 mg/l = 10.37/2 = 5.18 mg/l vs (reported on DMR) 5.19 mg/l
March = 1.80 mg/l + 3.85 mg/l = 5.65/2 = 2.82 mg/l vs (reported on DMR) 2.83 mg/l

BOD5 30 Day Average lbs/day

January 8 – (0.046 MGD) (2.60 mg/l) (8.34 lbs/gal) = 0.997 lbs/day
January 22– (0.035 MGD) (3.32 mg/l) (8.34 lbs/gal) = 0.969 lbs/day

0.997 lbs/day + 0.969 lbs/day = 1.97/2 = **0.985 lbs/day vs (reported on DMR) 0.67 lbs/day**

February 5– (0.031 MGD) (5.81 mg/l) (8.34 lbs/gal) = 1.50 lbs/day
February 19–(0.040 MGD) (4.56 mg/l) (8.34 lbs/gal) = 1.52 lbs/day

1.50 lbs/day + 1.52 lbs/day = 3.02/2 = **1.51 lbs/day vs (reported on DMR) 1.39 lbs/day**

March 5– (0.039 MGD) (1.80 mg/l) (8.34 lbs/gal) = 0.58 lbs/day
March 19–(0.047 MGD) (3.85 mg/l) (8.34 lbs/gal) = 1.51 lbs/day

0.58 lbs/day + 1.51 lbs/day = 2.09/2 = **1.04 lbs/day vs (reported on DMR) 0.80 lbs/day**

**Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
NPDES Permit No. NM0030457
May 14, 2014**

TSS 30-Day Average mg/l

January = $7.14 \text{ mg/l} + 4.00 \text{ mg/l} = 11.14/2 = 5.57 \text{ mg/l}$ vs (reported on DMR) 5.57 mg/l
 February = $3.75 \text{ mg/l} + 2.50 \text{ mg/l} = 6.25/2 = 3.12 \text{ mg/l}$ vs (reported on DMR) 3.13 mg/l
 March = $10.00 \text{ mg/l} + 2.66 \text{ mg/l} = 12.66/2 = 6.33 \text{ mg/l}$ vs (reported on DMR) 6.33 mg/l

TSS 30-Day Average lbs/day

January 8 – (0.046 MGD) $(7.14 \text{ mg/l}) (8.34 \text{ lbs/gal}) = 2.74 \text{ lbs/day}$
 January 22– (0.035 MGD) $(4.00 \text{ mg/l}) (8.34 \text{ lbs/gal}) = 1.17 \text{ lbs/day}$

$2.74 \text{ lbs/day} + 1.17 \text{ lbs/day} = 3.91/2 = 1.95 \text{ lbs/day}$ vs (reported on DMR) 1.25 lbs/day

February 5– (0.031 MGD) $(3.75 \text{ mg/l}) (8.34 \text{ lbs/gal}) = 0.99 \text{ lbs/day}$
 February 19–(0.040 MGD) $(2.50 \text{ mg/l}) (8.34 \text{ lbs/gal}) = 0.84 \text{ lbs/day}$

$0.99 \text{ lbs/day} + 0.84 \text{ lbs/day} = 1.83/2 = 0.91 \text{ lbs/day}$ vs (reported on DMR) 0.84 lbs/day

March 5– (0.039 MGD) $(10.00 \text{ mg/l}) (8.34 \text{ lbs/gal}) = 3.25 \text{ lbs/day}$
 March 19–(0.047 MGD) $(2.66 \text{ mg/l}) (8.34 \text{ lbs/gal}) = 1.04 \text{ lbs/day}$

$3.25 \text{ lbs/day} + 1.04 \text{ lbs/day} = 4.29/2 = 2.14 \text{ lbs/day}$ vs (reported on DMR) 1.79 lbs/day

E-coli		
	<i>30 Day Average cfu/ml</i>	<i>Daily Max cfu/ml</i>
Reported January Values	1.0	1.0
Calculated Values	1.0	1.0
Reported February Values	1.0	1.0
Calculated Values	1.0	1.0
Reported March Value	1.41	2.0
Calculated Value	1.41	2.0

E-coli values have been reported correctly for the months reviewed.

**Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
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May 14, 2014**

Per the EPA NPDES Reporting Requirements Handbook, Revised August 25, 2004: Reporting of Loading:

“Some parameters in the permit are limited in terms of pounds per day (lbs/day). Although all of these parameters are measured initially in milligrams per liter (mg/L), conversion to lbs/day can be achieved by using the following formula. Always be sure to use the flow measurement determined on the day when sampling was done.

Flow on day of sampling (MGD) x concentration (mg/L) x 8.34 (lbs/gal) = Loading (lbs/day)”

Per Part III.F.6, of the Permit Daily Discharge is defined:

“Means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.”

Finding:

Reviewing documents from January, February, and March 2014 the reported discharge from the facility in lbs. /day was different from the sum calculated from the requested documents. This difference was small but recurring, it was found in the July 14, 2010 and July 11, 2012 inspections. The difference between the DMR reported value and the calculated one is due to using the monthly discharge and not the daily discharge on the day of sampling, see above. Speaking with Mr. Moffatt about this he felt using the monthly average is more representative of the real discharge than using the value on the day of sampling.

The difference in using one value over another is small and would not exceed the permit limits. No exceedences were found in the records reviewed, July 11, 2012 to June 14, 2014. The facility was found to be well operated and maintained. All other records and lab procedures reviewed followed recommended protocols.

**NMED/SWQB
Official Photograph Log**

Photo # 1

Photographer: Daniel Valenta	Date: 5/14/2014	Time: 0956 hours
City/County: West of Salem, NM/Dona Ana County		
Location: 2800 B.B. Roming Drive, Dona Ana County, New Mexico		
Subject: Bar screen at the headworks of the facility. When lift station fills, effluent is pumped to the headworks.		



**NMED/SWQB
Official Photograph Log**

Photo # 2

Photographer: Daniel Valenta	Date: 5/14/2014	Time: 0953 hours
City/County: West of Salem, NM/Dona Ana County		
Location: 2800 B.B. Roming Drive, Dona Ana County, New Mexico		
Subject: One of two Sequencing Batch Reactors (SRB).		



**NMED/SWQB
Official Photograph Log**

Photo # 3

Photographer: Daniel Valenta	Date: 5/14/2014	Time: 1006 hours
City/County: West of Salem, NM/Dona Ana County		
Location: 2800 B.B. Roming Drive, Dona Ana County, New Mexico		
Subject: UV disinfection system, all banks and bulbs working.		



**NMED/SWQB
Official Photograph Log**

Photo # 4

Photographer: Daniel Valenta	Date: 5/14/2014	Time: 1009 hours
City/County: West of Salem, NM/Dona Ana County		
Location: 2800 B.B. Roming Drive, Dona Ana County, New Mexico		
Subject: 4" Parshall flume and a ISCO Ultrasonic flow meter measure discharge effluent.		



**NMED/SWQB
Official Photograph Log**

Photo # 5

Photographer: Daniel Valenta	Date: 5/14/2014	Time: 1101 hours
City/County: West of Salem, NM/Dona Ana County		
Location: 2800 B.B. Roming Drive, Dona Ana County, New Mexico		
Subject: Discharge to dry Rio Grande.		

